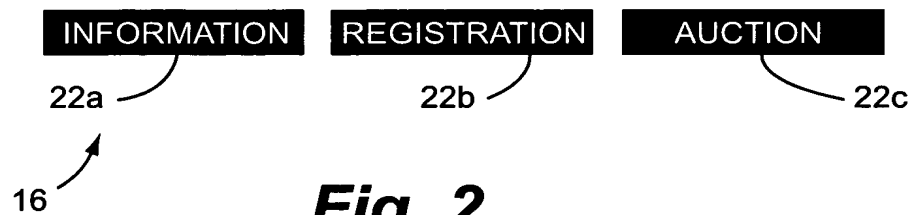


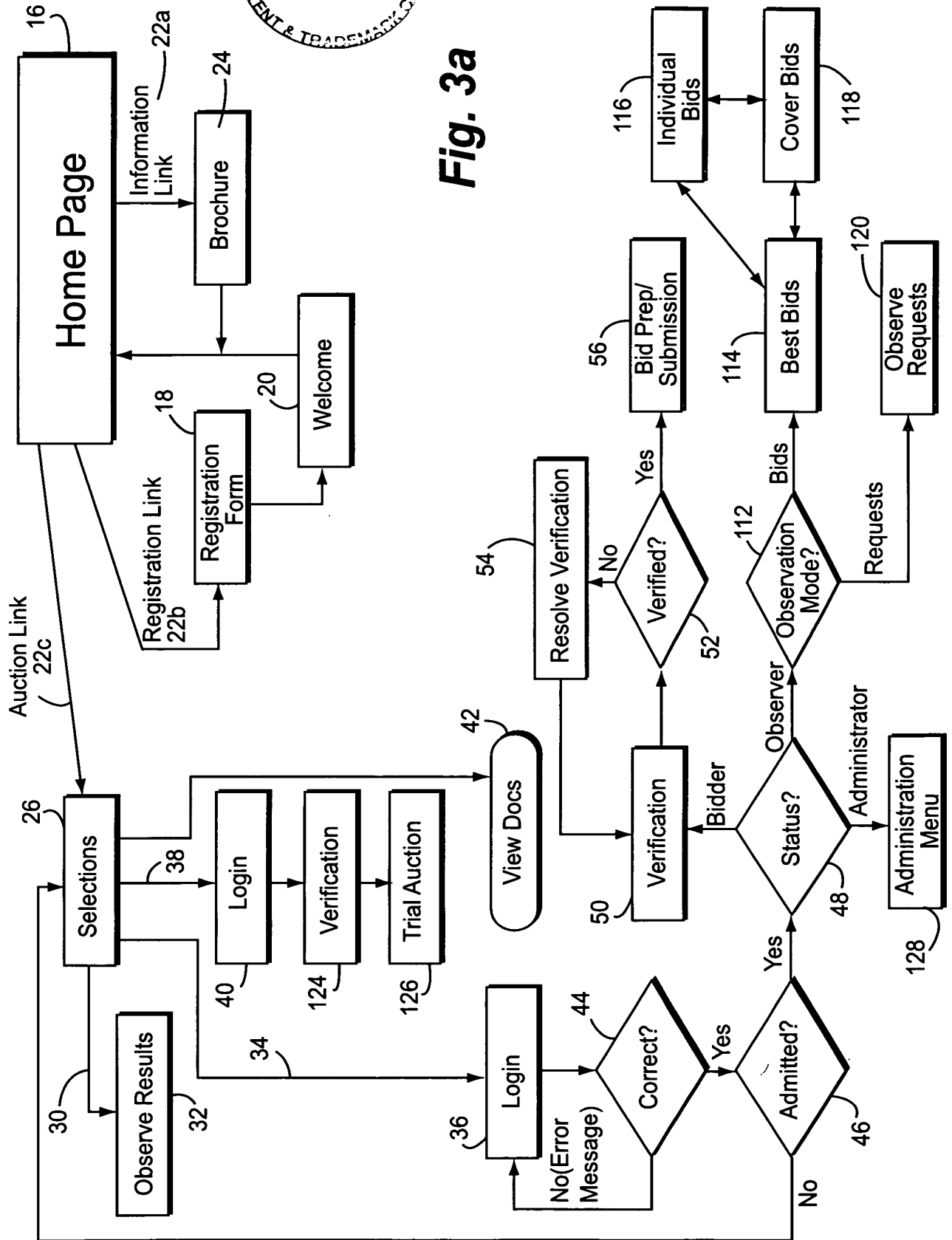
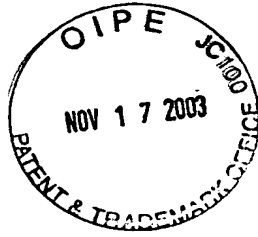
**Fig. 1**

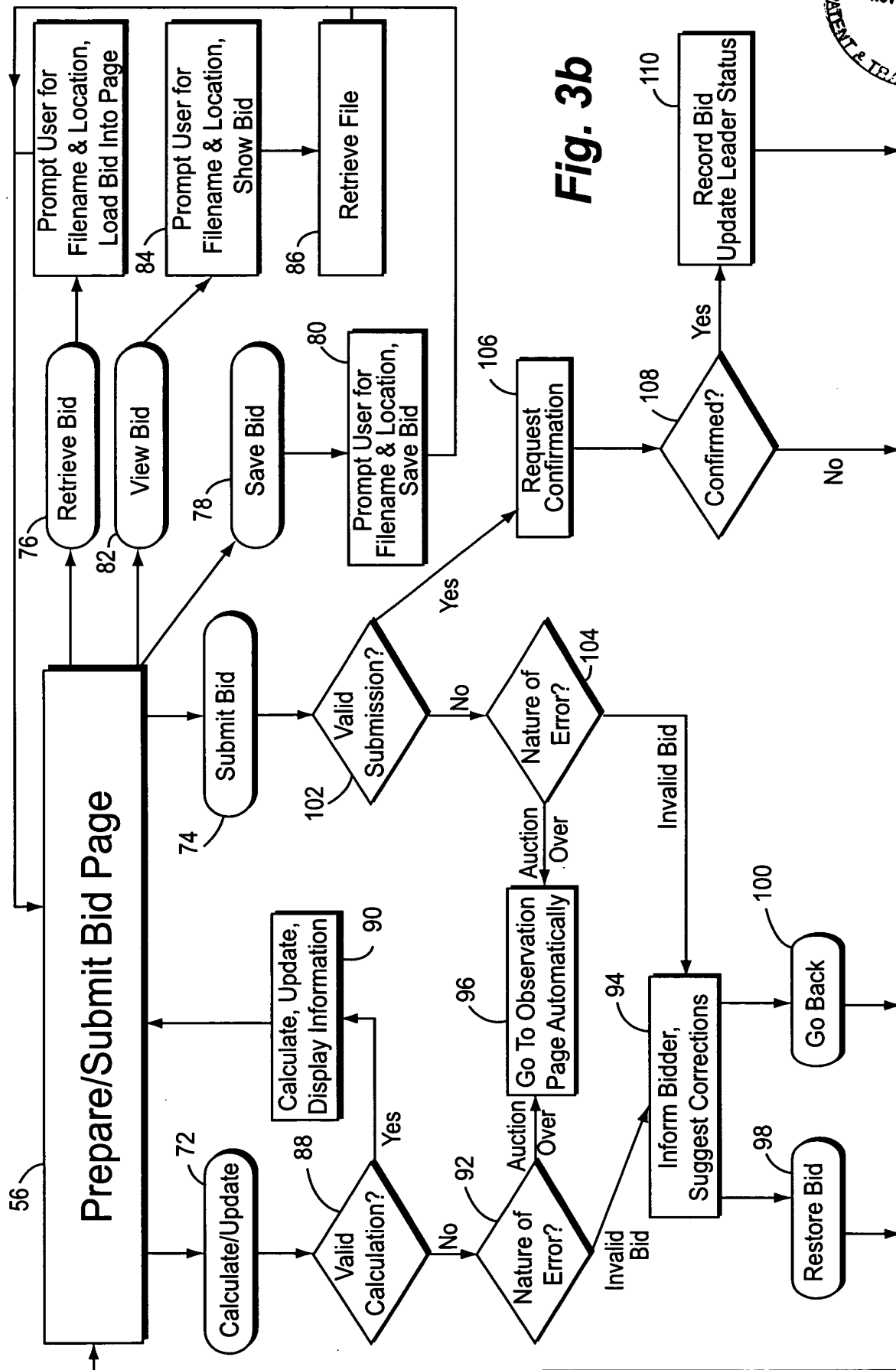
# MuniAuction

*The First Municipal Bond Auction Website*

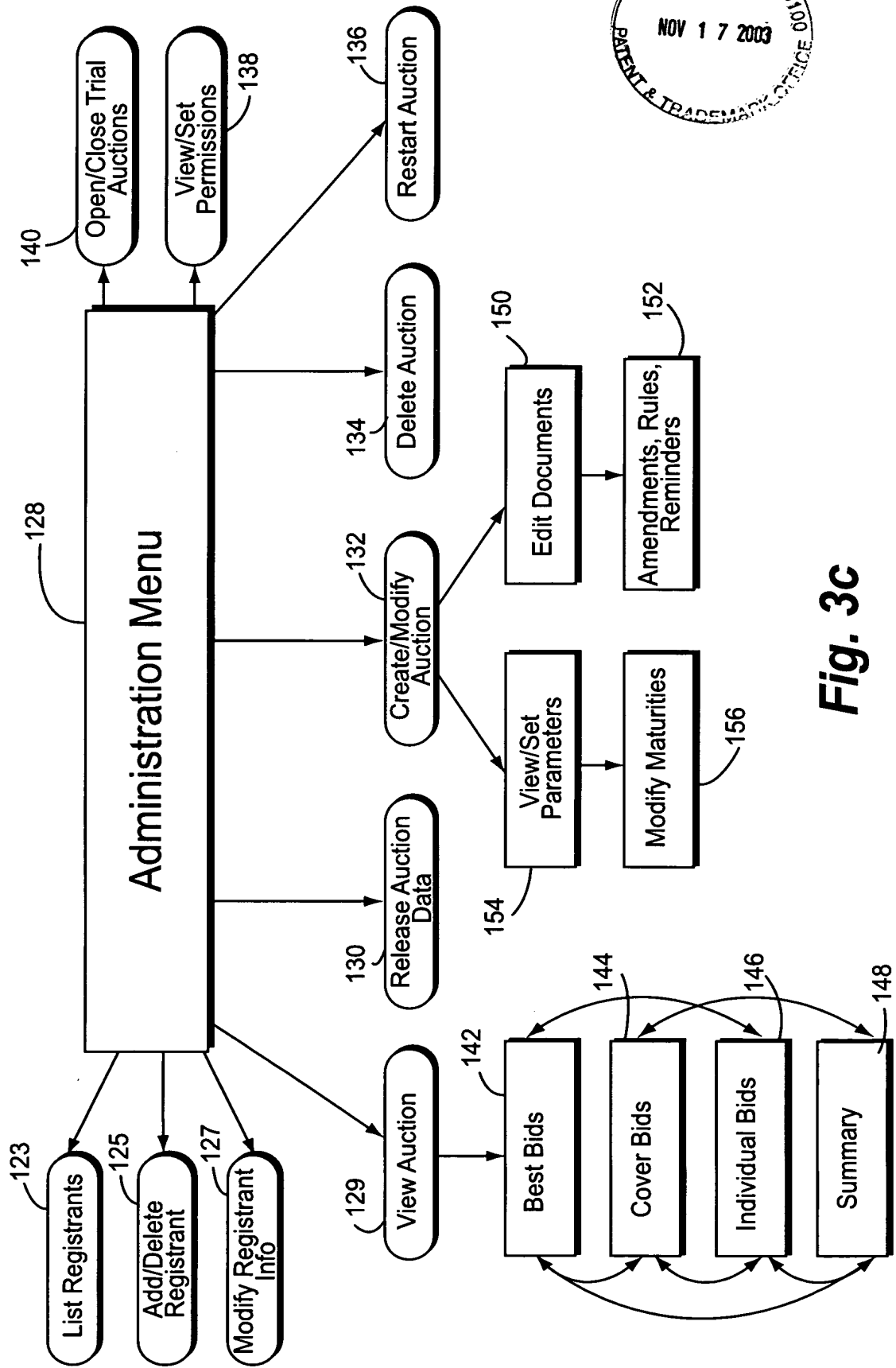


**Fig. 2**

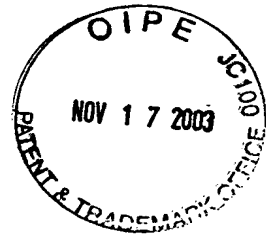




**Fig. 3b**



**Fig. 3c**





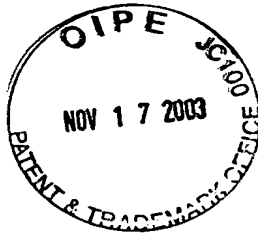
28

**REGISTRATION QUESTIONS** (Fields displayed in **bold** below are required.)

<b>FIRST NAME:</b>	<input type="text"/>
<b>LAST NAME:</b>	<input type="text"/>
<b>ORGANIZATION:</b>	<input type="text"/>
<b>ADDRESS (1st Line):</b>	<input type="text"/>
<b>ADDRESS (2nd Line):</b>	<input type="text"/>
<b>CITY:</b>	<input type="text"/>
<b>STATE:</b>	<input type="text"/>
<b>ZIP:</b>	<input type="text"/>
<b>TELEPHONE:</b>	<input type="text"/>
<b>TELEFAX:</b>	<input type="text"/>
<b>E-MAIL:</b>	<input type="text"/>
<b>MOTHER'S MAIDEN NAME:</b>	<input type="text"/>

(for security reasons only, e.g., verify your identity by phone)

***Fig. 4***



26

## Selections

Issuer	State	Description	Size*	Auction Date*	Start Time*
City of Trial Auction (All-or-None)	OR	Limited Tax Revenue Bonds 1998 Series A	\$29,000,000	Any Day	Any Time
(Amendments modified 4/20/98 @ 10:14 pm)					
<input type="button" value="Enter Auction"/> <input type="button" value="View Notice of Sale"/> <input type="button" value="View Amendments"/> <input type="button" value="View POS"/>					
City of Trial Auction (Maturity-by-Maturity)	OR	Limited Tax Revenue Bonds 1998 Series A	\$29,000,000	Any Day	Any Time
(Amendments modified 4/20/98 @ 10:14 pm)					
<input type="button" value="Enter Auction"/> <input type="button" value="View Notice of Sale"/> <input type="button" value="View Amendments"/> <input type="button" value="View POS"/>					
City of Portland (All-or-None)	OR	Limited Tax Revenue Bonds 1998 Series A	\$29,000,000	4/21/98	11:30 am EDT
(Amendments modified 4/20/98 @ 10:14 pm)					
<input type="button" value="Observe Results"/> <input type="button" value="View Notice of Sale"/> <input type="button" value="View Amendments"/> <input type="button" value="View POS"/> <input type="button" value="Request Admission"/>					
City of Portland (Maturity-by-Maturity)	OR	Limited Tax Revenue Bonds 1998 Series A	\$29,000,000	4/21/98	11:30 am EDT
(Amendments modified 4/20/98 @ 10:14 pm)					
<input type="button" value="Observe Results"/> <input type="button" value="View Notice of Sale"/> <input type="button" value="View Amendments"/> <input type="button" value="View POS"/> <input type="button" value="Request Admission"/>					

Go MuniAuction Home Page, Rules (modified 4/16/98 @5:01 pm), Instructions,  
to: Reminders, Results

**Fig. 5**



**Fig. 6**

32

## Observe Auction: Portland.1998A.MBM MBM Best Bids

Auction Date	Auction Type	Start	End	Time Of Last Update	Auction Status
Tue., Apr 21, 1998	MBM	11:30 am	12:00 pm	11:13:05 am EDT	Over

\$29,000,000  
City of Portland, Oregon  
Limited Tax Revenue Bonds  
1998 Series A

Best MBM TIC:	Best AON TIC:	Best AON Bidder:
4.9574 % (Not Winner)	4.9526 % (Winner)	Salomon Smith Barney (Winner)

Refresh

### Principal

Due	Amount*	Coupon	Price	Best Yield	Best MBM Bidder
April 1, 2000	\$1,000,000	3.900%	99.703%	4.063%	U.S. Bancorp Securities, Inc.
April 1, 2001	\$1,040,000	4.000%	99.578%	4.155%	U.S. Bancorp Securities, Inc.
⋮	⋮	⋮	⋮	⋮	⋮
April 1, 2016	\$2,050,000	5.000%	98.004%	5.172%	ADVEST INC.
April 1, 2017	\$2,160,000	5.100%	98.710%	5.208%	U.S. Bancorp Securities, Inc.
April 1, 2018	\$2,270,000	5.125%	99.032%	5.203%	CIBC-Oppenheimer

Refresh

Click below to see other bidder results

LEBE-DS	WILL-MD	PRAG-RM	BELL-ER	GEOR-KD	HUTC-RD	FIRS-RE
FIDE-DD	ADVE-JL	INTE-SF	RAYM-JR	A.G.-GH	SEAT-MA	U.S.-KS
MORG-TB	COMM-CB	EDWA-JC	ARTE-BW	CIBC-WH	Cover Bids	Bid Summary

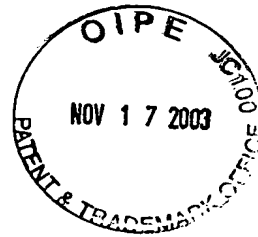
Go Notice of Sale, Amendments (modified 4/20/98 @ 10:14 pm), POS, Rules (modified to: 4/16/98 @ 5:02 pm) Instructions, Reminders, Selections, Results

Exit

MuniAuction Home Page

to:

**Fig. 7**



## Login

36/40

Auction Name: AON.TRIAL. AUCTION. SeriesA

Please go to Registration page if you have not yet registered with MuniAuction

Enter your ID number:

Enter your password:

*Note: Password is Case-Sensitive*

☒ as a bidder  
☐ as an observer

Exit to: MuniAuction Home Page

**Fig. 8**

## Acknowledgement

In order to view this POS, you must first acknowledge that you are eligible to bid(i.e., you represent either a bank or NASD registered broker-dealer)

*This shall not constitute a solicitation or offer to bid or purchase these securities to such persons or in such jurisdictions to which such offerings or solicitations are not permitted. An offer or solicitation shall be made only by means of the Preliminary Official Statement.*

Back to:





**Fig. 9**

## Verification

50

Your name is **Edward Pencoske**.

Your firm is **Thorp Reed & Armstrong**.

This auction is **AON.TRIAL.AUCTION.1998A**.

This auction is an **All-Or-None** auction.

**Please verify that the above information is correct.**

☐ YES ☐ NO

**Have you read the Notice of Sale and related Amendments (modified 4/20/98 @10:14 pm), if any, and do you agree to abide by the terms and conditions?**

☐ YES ☐ NO

**Have you read the Preliminary Official Statement?**

☐ YES ☐ NO

**Have you read the Rules of MuniAuction (modified 4/16/98 @5:01 pm) and do you agree to abide by them?**

☐ YES ☐ NO

**Enter Auction**

Go Notice of Sale, Amendments (modified 4/20/98 @10:14 pm), POS, Rules (modified to: 4/16/98 @5:01 pm) Instructions, Reminders, Selections, Results

Exit  
to: **MuniAuction Home Page**



# Auction

56

Auction Date	Auction Type	Start	End	Time of Last Update	Auction Status
Mon., Feb 23, 1998	MBM	9:30 am	10:00 am	3:10:16 pm	Over

\$91,760,000\*

The Pittsburgh Water and Sewer Authority, Pennsylvania  
Water and Sewer System First Lien Revenue Bonds,  
Series A of 1998

Name of firm submitting bid: MuniAuction, Inc.

This auction is competing with Pittsburgh Water and Sewer.SeriesA.AON.

70

As of 3:10:16pm, bids have been submitted for all maturities. ☐☐☐☐☐☐

72

Calculate/  
Update

IMPORTANT: Bidders must click the "Calculate/Update" button frequently during auction to update "Time of Last Update". Also, clicking "Calculate/Update" does not result in bid submission.

74

Submit  
Bid

68 Due	66 Principal Amount*	Coupon	Enter Either:		70 Your Status	76 Submitted Cpn-PP--YTM
Purchase Price	OR	Yield-to Maturity				
September 01, 2017	\$8,275,000	%	%	OR	%	Not Winner
September 01, 2018	\$8,695,000	%	%	OR	%	Not Winner
⋮	⋮	⋮	⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮	⋮	⋮	⋮
September 01, 2025	\$12,370,000	%	%	OR	%	Not Winner

IMPORTANT: Bidders must click the "Calculate/Update" button frequently during auction to update "Time of Last Update". Also, clicking "Calculate/Update" does not result in bid submission.

Go to: Notice of Sale, Amendments modified 2/20/98 @ 11:23am, POS, Rules modified 2/2/98 @ 11:40am Instructions, Reminders, Selections  
Exit to: MuniAuction Home Page

Fig. 10



# Auction

56

Auction Date	Auction Type	Start	End	Time of Last Update	Auction Status
Mon., Feb 23, 1998	AON	9:30 am	10:00 am	3:08:28 pm	Over

\$91,760,000\*

The Pittsburgh Water and Sewer Authority, Pennsylvania  
Water and Sewer System First Lien Revenue Bonds,  
Series A of 1998

Name of firm submitting bid: MuniAuction, Inc.

Purchase Price: \$  77  
(not to be less than \$89,466,000.00)

Your TIC: NO BID Your Status: Not Winner 76

70 This auction is competing with Pittsburgh Water and Sewer.SeriesA.MBM.

As of 3:08:28 pm, there has been at least one all-or-none bid submitted in this auction.

72

74

IMPORTANT: Bidders must click the "Calculate/Update" button frequently during auction to update "Time of Last Update". Also, clicking "Calculate/Update" does not result in bid submission.

68 Due	66 Principal Amount*	Serial/ Sinker Term	Coupon	Enter Either:		
September 01, 2017	\$8,275,000	<input type="button" value="Serial ▼"/>	%	<input type="button" value="Reoffering Price"/>	<input type="button" value="OR"/>	<input type="button" value="Yield-to-Maturity"/>
September 01, 2018	\$8,695,000	<input type="button" value="Serial ▼"/>	%	<input type="button" value="Reoffering Price"/>	<input type="button" value="OR"/>	<input type="button" value="Yield-to-Maturity"/>
⋮	⋮	⋮	⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮	⋮	⋮	⋮
September 01, 2025	\$12,370,000	<input type="button" value="Serial ▼"/>	%	<input type="button" value="Reoffering Price"/>	<input type="button" value="OR"/>	<input type="button" value="Yield-to-Maturity"/>

IMPORTANT: Bidders must click the "Calculate/Update" button frequently during auction to update "Time of Last Update". Also, clicking "Calculate/Update" does not result in bid submission.

Go to: [Notice of Sale](#), [Amendments](#) modified 2/20/98 @ 11:23am, [POS](#), [Rules](#) modified 2/20/98 @ 11:40am [Instructions](#), [Reminders](#), [Selections](#)  
Exit to: [MuniAuction Home Page](#)

Fig. 11



## Error

Sorry. Your bid was invalid for the following reasons:

1. For the Sinking Fund redemptions maturing on September 01, 2022 you are not allowed to enter a yield.
2. For the Sinking Fund redemptions maturing on September 01, 2022 you have entered price or coupon values that are not identical to the values for the corresponding Term bonds maturing on September 01, 2023.
3. You specified bonds maturing on September 01, 2020 as Term bonds, but you did not specify bonds for the preceding maturity as Sinking Fund redemptions (i.e., "Sinker").
4. You specified bonds maturing on September 01, 2018 as Sinking Fund redemptions, but you did not specify the subsequent maturity as either Sinking Fund redemptions (i.e., "Sinker") or Term bonds.

*To specify any maturity as a term bond maturity, you must specify one or more preceding maturities as Sinking Fund redemptions.*

5. For the bonds maturing on September 01, 2017 you entered a coupon less than 1.00%.
6. Your Purchase Price must not be less than \$89,466,000.00.
7. For the bonds maturing on September 01, 2017 your coupon entry of 0% does not conform to the rules of the auction. Coupon entered must be non-zero.

To return to the Auction Page with your most recent inputs, click the BACK button below.

**BACK**

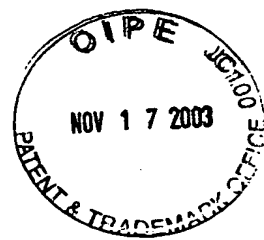
To restore the Auction Page to your last successfully submitted bid, click the Restore button below (Warning: If no bid has yet been successfully submitted, clicking the Restore button will return you to a blank Auction Page).

**RESTORE**

Go to: [Notice of Sale, Amendments](#) (modified 2/20/98 @ 11:23 am, [POS](#), [Rules](#) (modified 2/20/98 @ 11:40 am) [Instructions](#), [Reminders](#), [Selections](#)

Exit to: [MuniAuction Home Page](#)

**Fig. 12**



# Confirmation

Auction Date Any Day	Auction Type AON	Start	End	Time Of Last Update 4:57:37 pm	Auction Status
-------------------------	---------------------	-------	-----	-----------------------------------	----------------

\$91,760,000\*

AON Trial Auction (Series A), Pennsylvania  
Water and Sewer System First Lien Revenue Bonds,  
Series A of 1998

Name of the firm submitting bid: MuniAuction, Inc.

Are you sure you want to submit the following bid?

Purchase Price: \$90,000,000.00

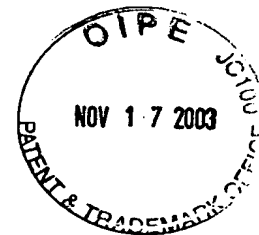
Your TIC: 6.0803 %

Due	Principal Amount*	Serial/ Sinker/ Term	Coupon	Price	Yield
Beginning of Term group					
September 01, 2017	\$8,275,000	Sinker	5.000%	100.000%	...
September 01, 2018	\$8,695,000	Sinker	5.000%	100.000%	...
September 01, 2019	\$9,140,000	Sinker	5.000%	100.000%	...
September 01, 2020	\$9,610,000	Sinker	5.000%	100.000%	...
September 01, 2021	\$10,105,000	Term	5.000%	100.000%	5.000%
End of Term group					
September 01, 2022	\$10,630,000	Serial	6.000%	100.000%	6.000%
Beginning of Term group					
September 01, 2023	\$11,180,000	Sinker	7.000%	100.000%	...
September 01, 2024	\$11,755,000	Sinker	7.000%	100.000%	...
September 01, 2025	\$12,370,000	Term	7.000%	100.000%	7.000%
End of Term group					

Go to: [Notice of Sale, Amendments](#) (modified 2/20/98 @ 11:23 am, [POS](#), [Rules](#)  
(modified 2/20/98 @ 11:40 am) [Instructions](#), [Reminders](#),  
[Selections](#)

Exit to: [MuniAuction Home Page](#)

**Fig. 13**



# Administration

Auction Permissions: Pittsburgh Water And Sewer SeriesA.AON

Observe All

Change Auction Permissions

Return to Menu

Admission Status	Allow Bid	Allow Obs	ID Number	Organization
Requested	<input type="checkbox"/>	<input type="checkbox"/>	MUNI-DV	MuniAuction, Inc.
Requested	<input type="checkbox"/>	<input type="checkbox"/>	SHOD-RO	The Shodor Education Foundation
	<input type="checkbox"/>	<input type="checkbox"/>	CMU-DH	CMU
	.	.	.	.
	.	.	.	.
	.	.	.	.
	.	.	.	.
	.	.	.	.
Requested	<input type="checkbox"/>	<input type="checkbox"/>	ONLI-KO	OnLine Partners
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SHOD-MS	Fulcrum
	<input type="checkbox"/>	<input type="checkbox"/>	TEST-MT	Test, Inc.

Change Auction Permissions

Return to Menu

Fig. 14



## Administration

Create New Auction

Date of Auction:

Month   Day  Year

Start time: :  End time: :

Settlement Date:

Month   Day  Year

Dated Date:

Month   Day  Year

Date of First Interest payment:

Month   Day  Year

First Optional Call Date:

Month   Day  Year

Good Faith Deposit: \$

Clearing Agent Fee: ☐ costs per \$1,000 bond

Overnight Loan Charges: ☐ costs per \$1,000 bond

<b>Auction Type</b>
<input type="radio"/> Trial Auction
<input type="radio"/> Live Auction
<b>Options:</b>
<input type="radio"/> All-or-None
Minimum Allowable Purchase Price: <input type="text"/> %
<input type="radio"/> Allow Serials/Sinkers/Terms
<input type="radio"/> Allow Serials Only
<input type="radio"/> Maturity-by-Maturity
<input type="radio"/> Display Best TIC/Yield and Status
<input type="radio"/> Display Status but Hide Best TIC/Yield
<input type="radio"/> Hide Best TIC/Yield and Status
<b>Auction Bidding Method:</b>
<input type="radio"/> Coupon and Price
<input type="radio"/> Coupon And Yield
<input type="radio"/> Coupon and Price or Yield
<b>Competition</b>
<input type="radio"/> No Competition.
<input type="radio"/> This auction will compare with:
<b>Bid Restrictions:</b>
<input type="radio"/> Single Bid
<input type="radio"/> Multiple Bids

Maximum Allowable Reoffering Price	<input type="text"/> %
Minimum Allowable Reoffering Price	<input type="text"/> %
Maximum Allowable Coupon	<input type="text"/> %
Minimum Allowable Coupon	<input type="text"/> %
<input type="checkbox"/> Ascending Yields Required	
<input type="checkbox"/> Ascending Yields Not Required	
<input type="checkbox"/> Zero Coupons Allowed	
<input type="checkbox"/> Zero Coupons Not Allowed	
<input type="checkbox"/> Zero Coupons Required	
Total to Display: <input type="text"/>	
<input type="checkbox"/> No restrictions on coupons	
Coupons must be multiples of:	
<input type="checkbox"/> 1/8th of 1%	
<input type="checkbox"/> 1/20th of 1%	
<input type="checkbox"/> Either 1/8th or 1/20th of 1%	
<input type="checkbox"/> Allow All bids	
<input type="checkbox"/> Allow Better Bid Only	

Number of maturities to be offered:

Auction names:

Issuer:

County (If applicable):

State:

Auction Description:

<input type="text"/>
----------------------

**Fig. 15**